

A CAMPAIGN OF ROPES. AN ANALYSIS OF THE DUKE OF WELLINGTON'S PRACTICE OF MILITARY ART DURING THE PENINSULAR WAR, 1808 TO 1814

**A MONOGRAPH
BY
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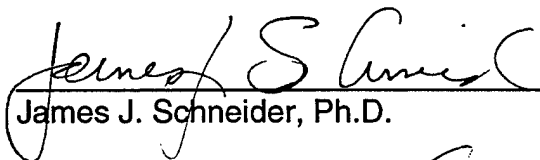
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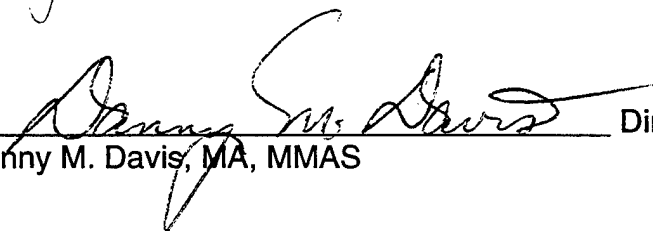
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ABSTRACT

A CAMPAIGN OF ROPES. AN ANALYSIS OF THE DUKE OF WELLINGTON'S PRACTICE OF MILITARY ART DURING THE PENINSULAR WAR, 1808 TO 1814 by MAJ J. Kevin Hendrick, USA, 59 pages

The purpose of this paper was to study the practice of military art at the operational level of war. The story of Wellington's ultimate success against Napoleon's Marshals was selected as a case study as it seemed rich in the application of mental agility to achieve an asymmetrical military advantage in a theater of war. As military theory recognizes two general types of military art, classical strategy and operational art, the research question was constructed to determine if Wellington practiced pure classic strategy, or an early/transitional form of operational art.

In order to provide a basis of analysis, the essential elements of both classic strategy and operational art are next defined. The history of classic strategy is outlined, then the theory of Clausewitz and Jomini used to define its four basic elements. The practice of operational art is then traced, from its inception by U.S. Grant during the American Civil War, to Soviet operational theory developed in the 1920's. The theory of Dr. James Schneider, a primary interpreter of both Grant and the Soviets, provides the eight essential elements of operational art. To round out the section on military art, U.S. operational doctrine is outlined and discussed.

Like most military officers, Wellington was a creature of his own experience, therefore a chapter is dedicated to the lessons he learned as a young officer in India. The following chapter is dedicated to a study of the Peninsular War. As the research question deals with both the operational and strategic levels of war, Wellington's tactics are neglected in favor of his campaign concepts and execution.

Analysis determines that in three out of five campaigns, Wellington practiced a pure form of classic strategy. Unfortunately, these campaigns all ended in failure. In his two successful campaigns, Wellington was able to gain an asymmetrical advantage over the French by the incorporation of four of the eight elements of operational art into his operational concept. Although he lacked the technological necessities required to practice full-fledged operational art, it is concluded that Wellington practiced a transitional style of warfare that can be termed an early form of operational art.

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**A Campaign of Ropes.
An Analysis of The Duke of Wellington's Practice of Military Art
During the Peninsular War, 1808 to 1814.**

On June 25, 1807, Napoleon Bonaparte met with Czar Alexander on a raft in the middle of the Nieman River to discuss terms for a general peace between the Prussian, Russian, and French Empires. Reportedly, the first words from the mouth of the Czar were: "I hate the English as much as you do yourself". This delighted Napoleon who replied, "If that is the case, then peace is already made."¹ As the third coalition had been smashed during the successive battles of Austerlitz, Jena-Auerstadt, Eylau, Heilsberg, and Friedland, Napoleon was the master of Europe and England had been isolated save for their oldest continental ally, tiny Portugal.²

Although England maintained their naval dominance over the French, their lack of a powerful continental ally severely hampered their ability to wage a decisive land war against the French. This increased the importance of retaining an Anglo-Portuguese alliance. To counter this alliance, Napoleon mounted extensive diplomatic pressure upon Portugal to abandon England and join his continental system. Portugal refused, resulting in their invasion and occupation by the end of November 1807.³ It now appeared that England had been totally isolated and that it would be only a matter of time until the continental system wrecked the English economy and forced them to the bargaining table. Seemingly, all that remained was to be patient.

However, in 1808, in an attempt to bring the kingdom of Spain under his

direct control, Napoleon intrigued against the ruling Spanish Bourbons and placed his brother, Joseph Bonaparte, on the throne of Spain. By the 1st of April there were clear signs that the Spanish people were beginning to rise in revolt against their new masters. By the 2d of May a general insurrection had to be put down in Madrid itself. A month later the entire Spanish nation was galvanized against Napoleon and preparing for war. Most significant in these war preparations was a request through the governor of Gibraltar for British assistance.⁴ Napoleon's blunder had given England both an ally and a foothold back onto the continent.

On the 12th of July, 1808, Lieutenant General Arthur Wellesley, the future Duke of Wellington, sailed for the Iberian Peninsula aboard H.M.S. *Donegal*. His destination was Portugal, where he was to take temporary command of the British expeditionary force. Thus began the Peninsular War, the "Spanish ulcer" that was to begin a telling military drain on Napoleon. Almost six years later, on 10 April, 1814, the battle of Toulouse ended the Duke's campaign to expel the French from Spain. Four days earlier, Napoleon had abdicated and was subsequently exiled to Elbe. The Iron Duke became not only a British hero, but also a hero to entire European community dedicated to the overthrow of Napoleon. In later years, when asked why he had enjoyed such success against the French Marshals in Spain, he was fond of saying:

"They planned their campaigns just as you might make a splendid piece of harness. It looks very well; and answers very well; until it gets broken; and then you are done for. Now I made my campaigns of ropes. If anything went wrong, I tied a knot; and went on."⁵

This statement shows that Wellington considered his success to be the result of the application of the *art of war* over pure *science of war*. Wellington's specific style of military art was key in that it allowed him to gain an asymmetrical advantage over the French Marshall's that Napoleon sent to face him. This monograph will seek to determine whether or not the art practiced by Wellington was classic military strategy or an early form of operational art.

In mid to high intensity warfare, military art, at the operational level of war, may be conducted by two primary methods, classic strategy or operational art. The ability to identify Wellington's particular brand of military art is relevant as it is of prime importance to the CinC (Commander in Chief), as to which style of art is called for when developing a campaign plan for a particular theater of war. The 1982 version of FM 100-5 defined the operational level of war, but did not mention operational art. In 1986 operational art was codified into doctrine as a functional process by which a CinC translates strategic goals into tactical successes. This doctrinal definition seems to have more to do with the management of the operational level of war than it does with the planning and practice of operational art. As the style of military art available to the operational commander is not specified by doctrine, it is thus important that the CinC recognize the properties of each art and the circumstances that call for the use of each.

Classic strategy is defined by the battle of annihilation, which reached its zenith during the Napoleonic era. The battle of annihilation was typified by the

“strategy of the single point”, which massed large armies on a single battlefield for decisive combat. Maneuver was typified by either concentrated or concentric movement with the aim of concentrating overwhelming military force at the decisive point. Because of the nature of a battle of annihilation, classic strategy often results in a relatively short conflict.

On the other hand, operational art is typified by distributed deep maneuver against an equally distributed, and symmetrical opponent. A single decisive battle of annihilation becomes increasingly difficult to achieve because of two effects, the paradox of the empty battlefield,⁶ and the distribution of the opposing armies, and their critical national assets, throughout the theater of war/operations.⁷ Operational art, rather than being defined by a single decisive battle, is typified by attrition, erosion, and exhaustion, where only the last battle is likely to be decisive.⁸

This study will use Wellington’s conduct of the Spanish War as a case study to identify the conditions that warrant the practice of either classical strategy or operational art in a specific theater of war. The ability of a CinC to wield the most effective form of military art for his particular theater of operations will be key to his ability to gain an asymmetrical advantage over his foe. Failure to do so correctly may well lead to a protracted conflict for which, historically, the American people have had little patience.

To determine whether or not Wellington practiced operational art or classical strategy, it is first necessary to determine the definitions of each term.

As the zenith of classic strategy is generally found in the practice of war developed by Napoleon, the primary interpreters of Napoleon, Clausewitz and Jomini will define the properties of his art. Operational Art will be defined by theory of Dr. James J. Schneider and supported by the Russian theorists Svechin, and Triandafillov. The doctrinal definition of both the operational level of war and the operational art found in U.S. doctrine will also be explained and discussed. Once the elements of classical strategy, operational art, and U.S. doctrine are determined, Wellington's conduct of the Peninsular war may be studied and analyzed.

The paper will next focus on a careful study of Wellington's conduct of the peninsular war. Like most soldiers, Wellington was a creature of his own experience, therefore a synopsis of the lessons he learned as a young officer in India will be presented as the basis of his idea as to the proper construction of a military campaign. Next, the specific situation found in the Spanish Theater will be discussed. As Wellington conducted the war as a "campaign of ropes", a key piece to this chapter will be the actual execution and modifications made to the original theater plan. As the research question deals with both the operational and strategic levels of war, the tactics of the war will be neglected in favor of Wellington's concept for a successful campaign. Wellington's conduct of the Spanish War will then be analyzed against the elements of classical strategy and operational art developed in chapters two, three and four. The research question will then be answered, along with related discussion and implications.

CLASSIC STRATEGY

Classic strategy was little changed from the advent of organized war, around the 15th century B.C.E., to the end of the eighteenth century.⁹ Until the advent of the wars of the French Revolution all military strategy was based upon the strategy of the single point. Opposing armies trained, marched, and fought in a concentrated manner against an equally concentrated foe. Typically the larger army defeated the smaller, unless a new technology or tactical innovation gave an asymmetrical advantage to the smaller. The Greek use of the massed phalanx to destroy the Persians at the battle of Marathon is an example of superior tactics,¹⁰ while technical superiority was demonstrated by the English use of the long bow to defeat the French at the battle of Crecy¹¹

Warfare increased in complexity during the French Revolution, primarily by the refinement of classic strategy by Napoleon Bonaparte. The strategy of a single point grew to encompass a new and deadly ideal, the battle of annihilation, fought by massive armies of conscripts on a grand scale. Where Rome and Frederick the Great had massed thousands, Napoleon used concentric maneuver to mass tens of thousands, bringing about destruction that had never been imagined. The practice of Napoleonic warfare brought classic strategy to the very zenith of its development. This monograph will use the writings of Clausewitz and Jomini to provide the theoretical base to define the attributes of modern classic strategy.

Clausewitz and Jomini, despite opinions to the contrary, had a great deal in common when speaking of both the art and science of war. This chapter will seek the common threads between these two grand masters that define the goals and desired combat effects of a commander who chooses to practice the art of classic strategy.

Clausewitz said that the shortest way to achieve one's political objectives is by the destruction of the enemy's forces in a major battle. He recognized that there are other, non-military methods of winning, but believed that they are rarely effective.¹² He repeatedly states that the sole purpose of a battle is the destruction or defeat of the enemy.

"What do we mean by defeat of the enemy? Simply the destruction of his forces, whether by death, injury, or any other means—either completely or enough to make him stop fighting. ...the complete or partial destruction of the enemy must be regarded as the sole objective of all engagements. ...annihilation of the enemy is the primary purpose of battle. ...We do claim, however, that direct annihilation of the enemy's forces must always be the *dominant consideration*."¹³

This concept of annihilation, or destruction of the enemy in a major battle, was regarded by Clausewitz as *concentrated war*, the purpose of the entire conflict or campaign.¹⁴

Clausewitz's concept of the battle of annihilation is amplified by his famous concept of *centers of gravity*, the idea that in war a nation develops a "hub of all power and movement, on which everything depends".¹⁵ In Clausewitzian terms, major battle between the main armies are always to be considered the true center of gravity of a war.¹⁶ Clausewitz reinforces both the

concept of centers of gravity and the battle of annihilation by using the historical examples of Alexander, Gustavaus Adolphus, Charles XII, and Frederick the Great, stating that “the center of gravity was their army. If their army had been destroyed, they would all have gone down in history as failures.”¹⁷

Jomini also speaks of both destruction of the enemy army and centers of gravity, which he referred to as decisive strategic points or objective points. In language similar to Clausewitz, he identifies the enemy army as the most important objective point.¹⁸

“As to the objective points of maneuvers—that is, those which relate particularly to the destruction or decomposition of the hostile forces...this was the most conspicuous merit of Napoleon...He was convinced that the best means of accomplishing great results was to dislodge and destroy the hostile army, since states and provinces fall of themselves when there is no organized force to protect them...When a party has the means of achieving great success by incurring great dangers, he may attempt the destruction of the hostile army, as did Napoleon.”¹⁹

Objective points of maneuver should be of such importance that any threat against them would force the enemy to accept decisive battle. If battle was offered, but not accepted, then a subsequent objective point would be maneuvered upon, this process would be repeated until decisive battle was joined and a decision reached.²⁰

To accomplish the goal of decisive battle the concentration of forces in time and space are key to the theories of Clausewitz and Jomini. Clausewitz said that “there is no higher and simpler law of strategy than that of *keeping one’s forces concentrated*.”²¹ In chapter twenty-eight, book six, Clausewitz lays out a scenario of a major battle in a theater of operations, consisting of a

collision between two centers of gravity (the main forces of opposing armies).

Clausewitz calls for the maximum concentration of forces in the friendly center of gravity, thus ensuring a certain and massive effect against the enemy.²² Jomini is even more forceful:

"This employment of the forces should be regulated by two fundamental principles: the first being, *to obtain by free and rapid movements the advantage of bringing the mass of the troops against fractions of the enemy*; the second, *to strike in the most decisive direction*, -- that is to say, in that direction where the consequences of his defeat may be most disastrous to the enemy, while at the same time his success would yield him no great advantages. The whole science of great military combinations is comprised in these two fundamental truths."²³

Both theorists' emphasize that once a center of gravity/objective point has been identified, then it is desirable to offer battle.²⁴

The final important agreement between Clausewitz and Jomini concerns the purpose of maneuver. In classic strategy maneuver is not conducted to gain freedom of action, nor is it conducted to turn an enemy force out of a position, but, in the spirit of decisive battle, is designed to gain a positional advantage over the enemy. In the attack, direct movement against a defending enemy gains this positional advantage. This type of maneuver occurs on the battlefield, often within sight of the enemy, and requires numerical superiority in order to overcome the inherent advantages of the defense. Prior to battle, maneuver consists of concentration of forces upon a decisive point. If the decisive point is correctly chosen, the enemy will be forced to accept battle against a defending enemy, thus combining the advantages of the tactical defense with the strategic/operational offense.

Clausewitz extols the virtues of the maneuver to the flank, or envelopment, as the key to the concept of total victory on the battlefield.²⁵ He argues that it is only by envelopment that the offense can overcome the inherent strength of the defense, causing force destruction, an ensuing breakdown of morale, followed by disorganization of the defeated army.²⁶ Jomini is also a consistent advocate of direct maneuver although he names several historical examples to show that it is not always necessary to victory.²⁷

Jomini's writings on strategic lines best describes classic maneuver prior to battle. As a Napoleonic army was incapable of moving along only one route of advance, they advanced on parallel routes along the same general axis or line of operation. The separate columns took great pains to remain within supporting distance from each other to prevent the possibility of piecemeal destruction. Once the army commander identified the decisive point, *concentric maneuver* was utilized to concentrate the army. Seemingly a simple task, this maneuver calls for perfect timing and planning, as well as well trained subordinate units, in order to create an effective concentration. The ability to both identify the decisive point and concentrate by concentric maneuver was probably the true genius of Napoleon. The corollary to concentric maneuver is eccentric maneuver, where a concentrated force is separated on divergent march routes, either to pursue a retreating enemy, or to advance on parallel routes to the next decisive point.²⁸

In sum, this chapter has shown four fundamental characteristics of classic strategy. First, the battle of annihilation is the ideal model for warfare. Second, the enemy army/armed force is identified as the center of gravity/decisive point. Third, concentration of forces (or firepower) in time and space set the conditions for decisive battle. Fourth, maneuver is conducted in order to gain a positional advantage over the enemy. These criteria will be used to determine the degree of classical strategy employed by Wellington in the Peninsular War.

OPERATIONAL ART

As early as 1809 Napoleon had begun to lose his edge. Not through any fault of his own, but his enemies had learned much during the years of defeat and began to emulate his style of war. Beginning in 1809, the French began to face opponents who were organized and trained in the same manner as themselves. Napoleon, failing to realize that his previous advantage lay in more than his mere presence on the battlefield, now faced a militarily equal (symmetrical) opponent. This symmetry changed the equation of military power in Europe, turning the short, decisive wars of the early Napoleonic period into a prolonged struggle of attrition. This attrition warfare was the first example of what Dr. James Schneider calls "the dreadful symmetry".²⁹ Whether he knew it or not, by the end of 1809 Napoleon was finished; it was only a matter of time until he was overwhelmed by the combined forces of Europe.

Although the end of the Wars of Napoleon led to a general European peace that lasted for almost fifty years, the aftermath had an unintended

consequence. As European armies had mastered the art of classic strategy, a new style of military art was required to break this military symmetry. Helmuth von Moltke, the great Chief of the Prussian General, first made use of distributed field armies to encircle and annihilate in what became known as cauldron battle. This concept led to impressive victories over the Austrians in 1866 and the French in 1870. However, misinterpretations of Moltke by his successors resulted in a continuation of the desire to seek the Napoleonic decisive battle. Thus Germany entered World War I with a flawed operational concept. Instead of duplicating Moltke's feats of 1866 and 1870, Europe was instead locked into the "dreadful symmetry" of World War I.

Meanwhile, on the other side of the Atlantic, the United States, embroiled in the Civil War of 1861-65, discovered their own brand of dreadful symmetry. Two large, conscripted armies, led by generals schooled in the theory of Jomini, waged mutual classic strategy against each other to near exhaustion. In 1864, U.S. Grant, a man unconcerned by Jominian theory, was appointed as General in Chief of the Union Army. It was Grant's new vision of warfare that would shatter the American symmetry.

Grant's use of a new concept, operational art, allowed him to end the deadlock, bring the Confederate armies to bay, and complete their destruction. Grant's operational concept was built around the idea of distributed deep maneuver coordinated throughout the entire theater of war. This distributed maneuver was conducted not to gain a positional advantage, but to retain

freedom of action against the enemy force. For example, Grant's maneuver between successive battlefields in the Wilderness campaign was conducted to retain his ability to maneuver, encircle, and destroy.³⁰ Grant multiplied his operational effects by coordinating the maneuver of the Army of the Potomac with Sherman's maneuver of the Department of Mississippi. While Grant maneuvered against Lee's Army of Northern Virginia, Sherman maneuvered against Johnston's Army of Tennessee. Operationally, these two efforts were meant to converge, crushing the two major Confederate field armies somewhere in the Carolinas. Grant's strategy was made possible by the tools of the Industrial Revolution, especially the railroad and telegraph as the prime means of movement, logistical support, and command and control.³¹ Thus, it can be seen that U.S. Grant was the first to wage modern, industrial based war, founded on the principle of operational art.

Although the process of reverse engineering shows that Grant was the first *practitioner* of operational art, the U.S. army did not codify his new concepts into either doctrine or theory. Without a written theory the hard lessons learned by a generation of American soldiers was lost on the armies of Europe. It was only after the hideous attrition of the First World War that there was any coherent military thought developed on how to form a new asymmetrical advantage.

During the 1920's the Soviet Army began the first real effort to develop a new theory of modern warfare. At the leading edge of this Soviet experiment was A. A. Svechin. Originally an officer of the Imperial Russian Army, Svechin

gained his theoretical credentials during the debates that followed the Russo-Japanese war of 1905. His initial studies concentrated on the specific problems of troop control; methods by which multiple field armies could be effectively controlled on a distributed battlefield.³² After much consideration he concluded, "the Russian Imperial Army 'did not understand modern war'."³³ This led him to believe a new concept of strategy was required.

Svechin joined the Red Army during the Bolshevik Revolution, and in 1918 was designated to serve as the editorial head of "the Commission for the Study and Use of the Experience of the War, 1914-1918".³⁴ Svechin used his work on this commission as a springboard to launch a personal study into the conduct of war. After an exhaustive study of the Napoleonic practice of classic strategy, Svechin searched for a new method of warfare based on the modern industrial state. It was his hope that this would break the symmetry seen in World War I. In 1927 his classic work *Strategy* was published, this work redefined strategy, striving to demonstrate that modern industrial war was a qualitatively different form of war than the brand of classic strategy practiced by Napoleon and theorized by Clausewitz and Jomini.³⁵ Svechin's theory of total war was to become the cornerstone of Soviet Strategic thought until it's breakup in 1991. But it was up to a theorist named Triandafillov, to develop a practical method by which Svechin's strategic theory could be executed. The execution of Svechin's strategy became what is now known as operational art.³⁶

Triandafillov based his operational concepts on the work done by several other doctrinal thinkers of the Soviet Army, key among these were:

Tukhachevsky, Varfolomeev, Movchin, Berzin, Nikonov, and Zhigur.³⁷ These writers concluded that the ability to destroy an enemy army in a single engagement was now a virtual impossibility. Tukhachevsky wrote:

“In short, a series of destructive operations conducted on logistical principles and linked together by an uninterrupted pursuit may take the place of the decisive battle that was the form of engagement in the armies of the past, which fought on shorter fronts.”³⁸

These ideas were based not only on studies of the first World War, but also on the American Civil War. Trotsky himself argued that as the Russian and American Civil Wars were similar, in the area's of great expanse, sparse population, and inadequate means of communication, Grant's practice of distributed maneuver would be the most effective method of waging war by the Red Army.³⁹ Movchin defined the architecture of the Svechin's operational campaign by specifying three distinct phases: 1) initial border operations, 2) the exploitation and/or pursuit, and 3) a final series of operations aimed at destruction of the enemy.⁴⁰

Triandafillov's contribution to this body of work was the specification of the force structure and basic tactics required to accomplish Movchin's three phases of operational campaigning. Triandafillov correctly determined that the defense, always the stronger form of war, was now even stronger, and was likely to gain strength with each technological advance. His solution to overcoming this strength was the idea that suppression of a key area of the enemy front would

result in *effective destruction* of the targeted enemy for a specific piece of time and space. Massed effects of artillery would be the primary means of creating the required suppression. A “zone of penetration” would thus be created, allowing exploitation by a deep maneuver force.⁴¹

The operational formation suggested by Triandafillov was the Shock Army, which would consist of four to five rifle corps, with their organic artillery, four to five artillery divisions, and eight to twelve tank battalions.⁴² Although the Soviet Union of the 1920's did not have the assets to field such a force, Triandafillov saw them as a necessity. The Red Army took Triandafillov seriously, and at the peak of their military power, a Soviet Shock Army was embodied by the Tank Army; it consisted of two to four tank divisions, one or more motorized rifle divisions, organic artillery, and additional artillery pushed down from the Front.⁴³

To link two or more operations into a coherent whole, operations would commence along at least two separate, but converging axes. Exploitation and pursuit throughout the depth of the enemy's deployment would result in the destruction of the bulk of the enemy forces.⁴⁴ Triandafillov's doctrine of operational art downplayed the importance of singular battle while elevating the importance of linking a series of battles and engagements which would be conducted as “pieces” of a larger operation. It was this concept of the operation, aimed at accomplishing the strategic or operational purpose that brought forth the term “operational art”.⁴⁵

Now that the evolution and conduct of operational art has been traced, it is necessary to outline the elements and conditions necessary for the conduct of operational art. Dr. James Schneider's work on operational art specifies eight elements essential to the practice of operational art. These eight elements will be the criteria by which this paper will determine to what extent Wellington practiced and contributed to the evolution of operational art. These elements are:

- 1) The distributed operation: An ensemble of deep maneuvers and distributed battles extended in time and space, but unified by a common aim. That common aim is the retention or denial of freedom of action.⁴⁶
- 2) The distributed campaign: Rather than using the decisive battle as the building block of the campaign, the operational artist builds his campaign with the integration of two, or more, simultaneous and successive distributed operations. This concept pushes orientation away from the enemy army and towards specific terrain, with battles tending to occur around these key pieces of geography.⁴⁷
- 3) Continuous Logistics: As the practice of logistics is concerned with the movement and sustainment of forces in the field, continuous logistics is necessary to sustain both tempo and force density of an army. Without this element, an army will first culminate and then evaporate.⁴⁸
- 4) Instantaneous Command and Control: Distributed deployment of forces intensifies the amount of unexpected/unanticipated possibilities. To maintain

control of a distributed campaign, the commander requires instantaneous communications to rapidly adjust forces within his theater of operations.⁴⁹

5) The Operationally durable formation: A formation must be capable of conducting a succession of distributed operations. Operational durability is a direct function of continuous logistics and instantaneous communications.⁵⁰

6) Operational vision: The operational artist has a holistic approach to the design, execution and sustainment of their campaigns. Mental agility allows them to react to incoming information quicker than it arrives, and they possess the intuitive ability to ascertain the true state of affairs within their theater of operations.⁵¹

7) The distributed enemy: The enemy must be operationally oriented. If the enemy is not distributed in theater, the ability to conduct operational art effectively becomes impossible.⁵²

8) Distributed deployment: Required to protect economic/warmaking national assets, which are distributed throughout the enemy territory. This distribution tends to extend battlelines on a very broad front and works against a Napoleonic style concentration and its associated decisive battle.⁵³

U.S. DOCTRINE

As mentioned in the introduction, the term operational art is relatively new to U.S. doctrine. Although it has been demonstrated that the U.S. armed forces practiced operational art in both the Civil War and World War II, it was not until the 1970's that doctrine attempted to catch up with operational practice. Under

the leadership of the first Training and Doctrine (TRADOC) Commander, General William E. DePuy, the U.S. army published a new edition of FM 100-5, Operations in 1976. This new manual described a doctrine of "Active Defense" which was based both on DePuy's experience in World War II and his close relations with the German Bundeswehr. Although rejected by the army at large, due to its seeming lack of offensive spirit, the '76 version of 100-5 laid the ground work for a U.S. vision of war at the operational level.⁵⁴

In the 1982 edition of FM 100-5, the concept of AirLand Battle was introduced. This new doctrine was developed specifically to counter the operational art that had been developed and practiced by the Soviet Army of the 1970's. AirLand Battle was based on securing or retaining the initiative and exercising it aggressively to defeat the enemy.⁵⁵ Although the term operational art was not used, the operational level of war was defined as the use of available military resources to attain strategic goals within a theater of war, or more simply, the theory of larger unit operations.⁵⁶

In 1986, FM 100-5 was revised, AirLand Battle was retained as the U.S. operational concept, but it incorporated the lessons learned during the previous four years. For the first time, the term *operational art* was introduced into Army doctrine. Broadly, it was described as the employment of military forces to attain strategic goals in a theater of war or theater of operations through the design, organization, and conduct of campaigns and major operations. The successful conduct of operational art required the commander to answer three questions:

(1) What military condition must be produced in the theater of war or operations to achieve the strategic goal? (2) What sequence of actions is most likely to produce that condition? (3) How should the resources of the force be applied to accomplish that sequence of actions?⁵⁷ These questions remain as the keystone to the practice of operational art in the latest edition of FM 100-5.

As stated in the introduction, this particular definition of operational art deals more with the management of the operational level of war rather than the application of any specific military art. In fact, contrary to the theoretical definition of operational art, AirLand battle had more similarities to the practice of classical strategy than operational art. The 1986 FM 100-5 stated that operational art involves "fundamental decisions about when and where to fight and whether to accept or decline battle".⁵⁸ This statement speaks to an operational desire to continue the quest for the battle of annihilation. Maneuver is specifically defined as the movement of forces in relation to the enemy to secure or retain positional advantage.⁵⁹ Again, at odds with the definition of maneuver in operational art, which is conducted to retain, or deny, freedom of action. Finally, the idea of the Center of Gravity was taken directly from Clausewitz as "the hub of all power an movement, on which everything depends", and is described as "typically the enemy main force".⁶⁰

Although the conduct of the Gulf War of 1990 validated the concept of the AirLand Battle, the end of the Cold War forced the U.S. to move away from the concept of the mid to high intensity scenario. In 1993, the most recent version of

FM 100-5 was published. The operational level of war was expanded to embrace the idea of joint operations within a particular theater or war, forming the vital link between national and theater-strategic aims and the tactical employment of forces on the battlefield.⁶¹ The term operational art was expanded to:

“... the skillful employment of military forces to attain strategic and/or operational objectives within a theater through the design, organization, integration, and conduct of theater strategies, campaigns, major operations, and battles.”⁶²

A current U.S. Operational Commander practices operational art to ensure soldiers, materiel, and time are effectively used to achieve strategic aims through the design of campaigns. Proper campaign design serves to provide a framework around which a Commander in Chief (CinC) orders his thoughts. Improper campaign design results in a set of disconnected engagements instead of a cohesive plan. An improperly designed campaign would result in a conflict whose only measure of success or failure would be the measure of relative attrition.⁶³

In sum, U.S. Army doctrine states that operational art is simply the planning, organization, and management of any theater activity that ends with the production and execution of a coherent campaign plan. The campaign plan must provide the linkage between strategic goals and tactical execution. There is no particular military art that the CinC is required, or expected, to employ to meet this doctrinal goal.

Now that the theoretical and doctrinal elements of classic strategy and operational art have been determined, Wellington's methodology of campaigning can be examined. But, before proceeding to actions in Portugal and Spain, it is helpful to set the stage with an exploration of Wellington's years in India. This will provide the background necessary to understanding Wellington's actions in the Peninsular War.

WELLINGTON'S EXPERIENCE IN INDIA, 1796-1804

June of 1796, Colonel Arthur Wellesley, commander of the 33d British Regiment of Foot, began the eight-month journey to the port of Calcutta.⁶⁴ Although he had been a member of the Royal Army for nine years, Wellesley embarked upon his "Indian adventure" as the means to faster advancement as a British officer. It was to prove a successful strategy; not only did he mature as a leader, he also gained his initial experience as an independent commander in the Mahratta's war of 1803-'04. The lessons he learned in India were to prove fundamental to his approach to campaign planning in the Peninsular War. So important did Wellington consider his Indian experience that when an old comrade in arms, General Mackenzie, asked the Duke to explain the nature of the extraordinary endurance he had displayed on the field of Waterloo, Wellington answered promptly, "Ah, that is all India".⁶⁵

After disembarking his regiment at Calcutta in February 1797, Wellesley began a period of relative inactivity, broken only by an aborted expedition against the Spanish colony in the Philippines.⁶⁶ But, in August of 1798 he was

ordered to bring the 33d from Calcutta to Madras, to prepare for action against Tipoo Sultan. The governor-general had discovered that Tipoo, the formidable Moslem ruler of Mysore, was in alliance with the French.⁶⁷ (See Map A)

Wellesley, with the 33d, encamped at Wallajahbad. He was given general superintendence over the assembling army, which eventually numbered 26,500 men, of which 4,300 were Europeans, and 2,600 cavalry. Wellesley then moved the army to Vellore, where he turned it over to the personal command of General Harris, the Commander in Chief at Madras. Harris commended Wellesley for his attention in instilling discipline, the conduct of training, and ensuring the well being of the troops. His system of supply also attracted favorable attention, as the commissaries were consistently well stocked and administered.⁶⁸

When the decision was made to form a separate division, Wellesley was given command. The division numbered some 7,000 men, to include his own 33d.⁶⁹ This would be Wellesley's first opportunity to command a combined force in battle against a French trained and led force.

Although Tipoo continued to send letters of mollification and wishes for peace, Lord Mornington initiated the invasion of Mysore on February 3d, 1799.⁷⁰ As the British Army struggled to penetrate the Indian jungle, Tipoo left the protection of his citadel to give battle. On the 26th of March, as the weary English emerged from the jungle to the east of Mallavelly, Tipoo attacked. It was his misfortune to attack in column against the staunch muskets of Wellesley's

own regiment. The French trained Indians were first stopped by the murderous fire of the 33d, then scattered by Wellesley's cavalry.⁷¹

Defeated, Tipoo quickly retreated into the fortress at Seringapatam, which the British besieged on April 5, 1799. A general assault was conducted on 4 May, resulting in the capture of the fortress and the death of Tipoo Sultan. Wellesley's division had served as army reserve.⁷² Although not heavily engaged at Seringapatam, Wellesley learned the fundamentals of assembling, training, and providing logistical support for a large body of men. This knowledge would serve him well in the coming years.

The 29th of April 1802, Wellesley was promoted to the rank of Major General (Indian list), and was confirmed as the Commander in Chief of the conquered province of Mysore.⁷³ Soon after, in the autumn of 1802, Wellesley had the opportunity to exercise independent command in the Mahratta War. Holkar of Indore, who was allied, equipped, and trained by the French, had defeated two Mahratta chiefs, the Peshwah of Poona, and Schindiah of Gwalior. This was perceived as a heaven sent opportunity to destroy the marauding Mahrattans, and their French drilled and French led infantry. The governor-general of India quickly cemented an alliance with the Peshwah, while Schindiah went over to Holkar.⁷⁴

Wellesley efficiently moved his army across the Toombuddra and Kistna Rivers, poised to regain the captured citadel of Poona. His army advancing

smoothly, Wellesley led a wild cavalry ride to secure Poona from destruction on the 20th of April. The Peshwah was soon resealed on his throne.⁷⁵

Negotiations between the governor-general and Scindiah continued, but by the 6th of August, 1803, negotiations were broken off and war declared. Wellesley moved immediately to seize Scindiah's fortress of Ahmednuggur, one of the strongest in India. On the 8th of August the fortress was stormed in such a skillful fashion that one Mahratta chief was heard to exclaim, "These English are a strange people. They came here in the morning, surveyed the wall, walked over it, killed the garrison and returned to breakfast".⁷⁶

Determined to bring the enemy to decisive battle, Wellesley crossed the Godavery River, and maneuvered to push Scindiah to the north. On the 23rd of September, with only a portion of his army, he encountered Scindiah's entire army near the village of Assaye, defending on the far side of the Kaitna River.⁷⁷ Although outnumbered by six to one (7,000 to 42,000), Wellesley determined to attack. He discovered an unguarded ford across the Kaitna and moved to strike the enemy left. However, by the time he began to ford, the Mahrattans had shifted their front so that the British were forced into a frontal attack. Under Wellesley's personal direction, the assault concentrated on the Mahrattan artillery, and, despite murderous losses, seized the main batteries and put the enemy infantry to flight.⁷⁸ Colin Campbell, of the 78th, wrote that the victory was due only to the nerve and willpower displayed by the General.

"The General was in the thick of the action the whole time...I never saw a man so cool and collected as he was...though I can assure you, till our troops got the orders to advance the fate of the day seemed doubtful..."⁷⁹

Shortly after Assaye, in November, Wellesley fought the battle of Argaum, another audacious action in which he was outnumbered three to one. Again, at a moment of great peril, with his best Indian regiments retreating, Wellesley led a counter attack to restore the battlelines. By late afternoon, the Mahrattans had been defeated and had taken refuge in the Fortress of Gawilghur. The fortress fell in an assault that lasted a few hours on the 15th of December.⁸⁰ Wellesley's part in the Mahrattan war was over; he would soon return to Britain.

Wellesley learned six primary lessons during his years in India. 1) A successful campaign cannot be waged if the army is not logistically supported. 2) Attention to detail, especially in matters of training and supply, pays off when battle is finally joined. 3) He learned the intricacies of handling large bodies of men, his command in 1804 having risen to 50,000. 3) Wellesley insisted upon humane treatment of both his soldiers and a vanquished enemy. 4) When faced by overwhelming numbers, a sudden and violent attack from an unexpected direction would throw the enemy off balance.⁸¹ 5) Physical and mental stamina of the commander is of prime importance if he is to have the desired effect at the critical time and place on the battlefield. 6) Finally, the French, who had often trained, and led, his Indian adversaries, were not supermen; Wellesley knew they could be defeated.

WELLINGTON IN THE PENINSULAR WAR

April 1808, shortly after his promotion to Lieutenant General, Wellesley was selected to lead the initial British expeditionary army to the aid of the

Spanish insurrection against Napoleon. His specific commission was "the absolute evacuation of the Peninsula by the troops of France".⁸² While musing with some friends over the prospects of campaigning in the Iberian Peninsula, Wellesley expressed some concern over the high quality of the French soldiers and the new system of warfare that Napoleon had used to conquer Europe.⁸³

But, with characteristic confidence he declared:

"My die is cast, they may overwhelm me, but I don't think they will outmanoeuvre me. First, because I am not afraid of them, as everybody else seems to be; and secondly, because if what I hear of their system of manoeuvre, is true, I think it a false one as against steady troops. I suspect all the continental armies were more than half beaten before the battle was begun – I, at least, will not be frightened beforehand."⁸⁴

In accordance with the lessons he had learned in India, Wellesley spent the last weeks of July carefully orchestrating logistical support, and planning a campaign based on classic strategy. (See Map B)

After embarking his army on the 12th of July, Wellesley learned a French Army, under General Jean Junot, was concentrated near Lisbon. In characteristic fashion, he determined to strike. On the 1st of August, The British Army landed at Mondego Bay, and immediately moved to the offensive. Two days later the French rear guard was defeated at Rolica. This news threw General Junot into a panic as he attempted to concentrate his army against Wellesley. The French attacked the defending British on the 21st of August at the battle of Vimeiro. Wellesley defeated Junot, but, before he could launch a decisive pursuit, he was superseded in command, first by General Harry Burrard, then by General Hew Dalrymple. Dalrymple lost any chance of destroying Junot

and his army by negotiating the Convention of Cintra, which provided that the French would evacuate Portugal on a fleet of British transports.⁸⁵ This convention incensed Parliament, who demanded an inquiry as to the actions of the three primary British Commanders, Dalrymple, Burrard, and Wellesley.

Meanwhile, as Wellesley was being questioned in London, his former army, now under the command of General John Moore, engaged in battle against Napoleon himself. Napoleon routed the Spanish Army and, after the battle of Elvina, forced the British Army to evacuate Corunna on 16 January 1809. This defeat caused many in Parliament to reconsider the wisdom of a Peninsular War, and the withdrawal of all troops from Portugal seemed imminent. Wellesley attended a meeting of Parliament, and insisted that the situation could be salvaged and Portugal successfully defended. On the 2nd of April, he was reinstituted as commander of the army in Portugal and received these instructions:

"The defense of Portugal you will consider as the first and immediate object of your attention...His Majesty...leaves it to your judgment to decide when your army shall be advanced on the frontier of Portugal [and] how your efforts can best be combined with the Spanish as well as the Portuguese troops in support of the common cause."⁸⁶

After a careful study of Moore's disastrous Corunna campaign, Wellesley reached the conclusion that the French were too strong to be beaten easily. The Spanish armies were, as yet, unreliable, and uncoordinated, while, numerically, the British could not stand against the French columns on the open plains. The presence of the mountainous regions of Portugal lead Wellesley to conceive of

what he was to call his "cautious system". The cautious system would call for using the British army to garrison Portugal, gaining time to build up the Portuguese army. The French would then be subjected to harassing attacks from a position of safety. Wellesley began to realize that the Peninsular War would be a prolonged struggle, most likely to be decided by exhaustion rather than a single battle of annihilation.⁸⁷

Wellesley again landed on Portugal in April of 1809. Although he had settled on his cautious system, he saw an opportunity for rapid maneuver against the French corps of Marshal Soult. Within three weeks of landing in Lisbon, Soult had been defeated at Oporto, central Spain now seemed ripe for the taking.⁸⁸ Wellesley planned to use the Spanish Army of Francisco Venegas to cut Marshal Claude Victor's communications, while he and another Spanish Army, under Gregorio Cuesta, advanced on Madrid. After a ten week delay, they were on the march. Unfortunately, coordination between Wellesley and his Spanish allies was poor. Venegas failed to isolate Victor's Army, while Cuesta, at best, was slow and uncooperative. On the 27th of July, 1809, their poorly concentrated army was attacked by a large formation of French veterans, not the isolated detachment expected. Wellesley retreated deliberately to a series of hills north of Talavera, where he successfully defeated a French night attack. Unfortunately, the Spanish, on his right, panicked and fled the battlefield. The next day the battle of Talavera was fought. The British repelled repeated assaults for over thirty-six hours. Although he was left in possession of the field,

Wellesley had lost twenty-five percent of his strength. On the 3d of August, he began the execution of a skillful retreat to the safety of the Portuguese mountains.⁸⁹

Wellesley now abandoned his strategy to wage war in Spain. Not only did he lack the assets to stand toe to toe with the French, his Spanish allies had not measured up, either as a trustworthy army, or a consistent source of supply. Frustrated with the situation, he wrote his brother, newly installed ambassador to Spain:

"By going within the Portuguese frontier, I clear myself entirely of the Spanish army; and shall have an opportunity hereafter of deciding whether I shall cooperate with them at all, in what manner, and to what extent, and under what conditions, according to the circumstances of the moment."⁹⁰

As Moore's disaster at Corunna had persuaded Wellesley that the cautious system was the best policy to be pursued on the Peninsula, Talavera more than convinced him of its necessity. He was now of the opinion that his army might even be defeated unless he carefully husbanded it.⁹¹ Although remaining an offensively minded commander, circumstances forced Wellesley to adopt this course of action. He steadfastly remained convinced he could defeat the French in face to face combat, but restrained himself, knowing fully well that he commanded Britain's only field army, and, if he lost it, or allowed it to become badly damaged, it could not be replaced. In January 1810, he remarked to Colonel Stanhope, "I could lick these fellows any day, but it would cost me ten

thousand men, and, as this is the last army England has, we must take care of it.”⁹²

Wellesley now threw himself into the task of defending Portugal. Outposts covered the mountain passes while final fallback positions were constructed at Torres Vedras. At the same time, a concentrated build up of the Portuguese army commenced. Wellesley converted Portugal into a huge trap for the French: they would be allowed free access into a countryside stripped of foodstuffs, but were to be denied the opportunity for decisive battle. This strategy both attacked the French method of “locust foraging”, and allowed Wellesley much needed time needed to build a competent Portuguese force.⁹³ By January, 1810, Wellesley could report that fifteen regiments of Portuguese infantry had been brigaded with British regiments. In correspondence he boasted, “...the Portuguese army is better than I ever expected it would be”.⁹⁴ It was at this point that Wellesley was elevated to the peerage as Viscount Wellington of Talavera; henceforth he would sign his dispatches “Wellington”.⁹⁵

The positions at Torres Vedras were centered on the retention of his decisive point, Lisbon and its essential harbor. By October 1810, three lines of fortifications had been completed, and were defended by Portuguese troops. These defenses blocked all roads leading to Lisbon and utilized lateral road systems to facilitate the shifting of troops to critical points. (See Map C) A semaphore system tied all units into a consolidated communications network, while gunboats in the Tagus River supported the right flank. The role of the

British army was to form the allied center of gravity. Concentrating behind the Torres Vedras lines, they would be prepared to conduct counter attacks against the French. In the event of unexpected disaster, the third line of defense would provide cover to allow the evacuation of British forces.⁹⁶

While the Portuguese were constructing the defenses of Torres Vedras, Wellington prepared the British army to defend against a probable French invasion. To defend the three major approaches into Portugal, he divided the Anglo-Portuguese army into three commands. The first, under Beresford, centered at Abrantes, was poised to reinforce either the north or south, as well as defend. Hill, with two divisions, controlled the south in the Elvas-Badajoz area. Wellington, with the bulk of the infantry, held the most likely avenue of approach in the vicinity of Almeida.⁹⁷ Wellington planned to maximize the use of terrain and conduct a fighting withdrawal into the Torres Vedras lines.⁹⁸ Here, before Lisbon, his decisive point, he would first starve out, then destroy the invading French.

Wellington had expected Napoleon to take personal command of the French in the spring of 1810. However, pressing domestic matters, to include preoccupation in divorcing Josephine, kept Napoleon in Paris. By the 18th of May Wellington discovered his opponent would be Marshal Massena, who had been given command of 138,000 French soldiers and the mission to retake Portugal.⁹⁹

As Wellington expected, Massena elected to utilize the northern route into Portugal. But, prior to crossing the Portuguese border, he invested the Spanish fortress at Ciudad Rodrigo. Massena hoped that Wellington would leave the safety of the Portuguese mountains to attempt a relief of the garrison. Realizing he had little chance of success, Wellington refused battle and maintained his position.¹⁰⁰

Massena captured Ciudad Rodrigo on the 10th of July, and turned to the Anglo-Portuguese garrison at Almeida, which fell on the 28th of August. He then proceeded to garrison both captured fortresses. This convinced Wellington the French main effort would be along the northern approach; accordingly, he ordered Hill and Beresford to join him on the Mondego River. By the 25th of September the armies had concentrated and Wellington was prepared to offer battle on the Busaco ridge.¹⁰¹

Wellington's concentration on the Busaco ridge was in accordance with a plan conceived long before. The position completely blocked the road from Almeida to Coimbra, and the French were forced to attack.¹⁰² The following day Massena launched multiple corps in two desperate attacks against the heavily fortified ridgeline. Both attempts were thrown back by furious counterattacks. The French lost over five thousand to Wellington's twelve hundred. Unfortunately, Wellington's tactical victory was negated when French reconnaissance found a bypass; Massena turned his flank, forcing him to retreat.¹⁰³

According to plan, Wellington continued to fall back on Lisbon, drawing Messena toward the lines of Torres Vedras. On the 12th of October, the French reached the first line of defense, and, remembering the costly assault at Busaco, resolved to settle down, calling for reinforcements and siege artillery. For five months the French would wait for reinforcements that never came. Because of the scorched earth policy practiced by Wellington, French attempts to supply themselves by forage repeatedly failed. On the 5th of March, with his army starving, Messena finally gave the order to retreat. His once proud army of 130,000 had been reduced to 42,000. When apprised of the French evacuation, Wellington launched a spirited pursuit, ending with the recapture of Almeida. The liberation of Portugal had been achieved.¹⁰⁴

Wellington's strategy could now move to the expulsion of the French from Spain. In accordance with the cautious system he planned to retain Portugal as his base of operations, striking at isolated French armies on Spanish soil. This would lift the spirits of the long-suffering Spanish armies and people, giving him a reliable ally that he hoped would open a second front against the French.¹⁰⁵

Wellington envisioned his first step as the seizure of the fortresses at Ciudad Rodrigo, and Badajoz. Possession of these fortresses would control the two major invasion routes into Spain. Leaving 28,000 men to fix Messena at Ciudad Rodrigo, he marched south with two divisions to reinforce Beresford, who had already laid siege to Marshal Soult, who was defending Badajoz. An

unprecedented cooperation between Soult and Marmont, Messena's replacement, resulted in a concentration of two French corps against the British at Badajoz. Wellington abandoned the siege and retired into Portugal. Meanwhile, a serendipitous attack by the Spanish in Andalucia (Southern Spain), convinced Soult to march south, Marmont, now too weak to face Wellington on his own, withdrew.¹⁰⁶

Wellington now marched rapidly to the north, concentrating against Ciudad Rodrigo. Marmont attempted to counter, but before he could concentrate, the fortress fell on the 19th of January, 1811. The northern route into Spain was now secure. With the bulk of his army, Wellington countermarched to Badajoz arriving on the 16th of March. Fearing another concentration between Soult and Marmont, Wellington launched a bloody assault on the 6th of April. It cost four thousand casualties, but the fortress fell. Wellington now owned both major routes into Spain. Only one more step was needed to clear the way for invasion. In May 1812, General Rowland Hill seized control of the boat bridge on the Tagus River near Almaraz. With British troops now controlling the only lateral route forward of Madrid, Wellington could march into Spain without fear of a flank attack.¹⁰⁷

After a careful evaluation of the situation, Wellington determined to invade by the northern route against Marmont, who was garrisoned around Salamanca. For several days both armies maneuvered around Salamanca attempting to gain a relative advantage. Growing discouraged, a sharp engagement on the

evening of the 21st of July convinced Wellington decided to retire. The next morning, as Wellington began movement, Marmont attempted a move to the British flank. Seeing an unbelievable opportunity, Wellington launched an immediate attack with his entire army. The results were astonishing, in the ensuing battle of annihilation, Marmont was wounded, 14,000 French were killed and twenty guns lost; this to 5,000 lost by Wellington. The French retreated toward Burgos and an immediate pursuit was launched. By the 12th of August Madrid was in allied hands. Soult, fearing his communications would be cut, raised the siege of Cadiz and retreated to the north. In one fell swoop, Wellington had regained not only Madrid, but also southern and central Spain.¹⁰⁸

Wellington now divided his army, leaving half to garrison Madrid, under the command of Hill, taking the other half north to Burgos. As he approached the city, the French retreated, leaving the fortress strongly garrisoned. Instead of continuing the pursuit, Wellington mistakenly determined to lay siege to Burgos. The garrison held out for eight weeks, allowing the French to send a relief force of 50,000. Wellington was forced to retreat. Simultaneously, another 60,000 French threatened Hill's wing at Madrid. He was forced to join Wellington's retreat to Portugal. The French conducted a spirited pursuit which continued to the Portuguese border. All that had been gained had been as quickly lost.¹⁰⁹

Wellington accepted full blame for the failed campaign, then turned to the work of rebuilding his army and devising a new campaign plan. During the capture of Madrid, Wellington had been named Generalissimo of the Spanish

army. This new title allowed him to add several Spanish armies to his Anglo-Portuguese army of 81,000. This gave Wellington a decisive numerical advantage over the French, and he determined to put it to good use. He planned a double thrust toward the fortress at Burgos. While the French concentrated against his wing, the other, under Graham, would threaten their flank, the French would be forced to either risk envelopment, or retreat.¹¹⁰

By the end of May 1813, Wellington was on the move. The startled French attempted to concentrate at Burgos, but Wellington's rapid maneuver beat them there and seized the undermanned fortress. The French, under King Joseph Bonaparte, retreated to Vitoria, where he concentrated the 65,000 troops of three armies. Against him, Wellington mustered 80,000. On the 21st of June 1813, Wellington attacked the army of King Joseph; simultaneously, Graham cut their communications and their main route of retreat. Late in the afternoon the French were driven from the battlefield. As they attempted to retreat along a secondary road, a vigorous pursuit captured their wagon train, and 140 guns. Joseph's army continued the retreat from Spain, finally taking shelter in Bayonne. Within Spain, only the fortresses of Pamplona and San Sebastian remained in French hands. Wellington took the next four months reducing these redoubts, giving the French time to build a series of defensive lines in the Pyrenees mountains.¹¹¹

Wellington knew he must invade France to complete his task. Otherwise, the French could reinvade Spain, or join Napoleon's armies fighting the allies in

eastern France. Between the 7th of October and the 10th of December, Wellington's troops breached the three lines of defense that Soult had constructed along the French border, then pushed on to Bayonne. Fearing besiegement, Soult retreated to the east. The smell of blood hot in his nostrils, Wellington abandoned his communications and raced after the fleeing French.¹¹² The two armies met a final time on the 10th of April at the battle of Toulouse. Soult was defeated, but managed to escape on the 11th. Before he could continue the pursuit, Wellington received word that Napoleon had abdicated four days earlier, the Peninsular War was over.¹¹³

AN ANALYSIS OF WELLINGTON'S CONDUCT OF THE PENINSULAR WAR

Now that the basic structure of the Peninsular War has been laid out, Wellington's conduct of the war can be analyzed as to the elements of classic strategy and operational art. For purposes of analysis, the war will be divided into five distinct campaigns: 1) Wellington's initial landing and operations from July to December 1808. 2) Wellington's return to Portugal, and the actions leading up to and including the Battle of Talavera, April to July 1809. 3) The liberation of Portugal, August 1809 to May 1811. 4) The invasion of Spain, including the battle of Salamanca, and ending with the retreat into Portugal, June 1811 to December 1812. 5) The final campaign leading to the expulsion of the French from Spain and the invasion of France, May 1813 to April 1814. This analysis, in a matrix format, may be found at appendix 1.

Wellington's initial efforts on the peninsula were definitely built on the concepts of classic strategy. Before landing in Portugal, he learned that a French army under Marshal Junot was concentrated near Lisbon. Quickly identifying this force as the Center of Gravity, he landed his forces at Mondego Bay, he marched in a concentrated fashion, maneuvered to occupy a position of advantage, and won the battle of Vimeiro. Wellington had envisioned Vimeiro as a battle of annihilation, but was precluded from launching the necessary pursuit by the arrival of General Harry Burrard, who succeeded him in command.¹¹⁴

There are no elements of operational art visible in this campaign. At first brush, the French appeared to be distributed throughout the theater. However, the Marshals considered themselves to be deployed in four separate theaters: Portugal, Southern Spain, Central Spain, and Northern Spain. This led to an inability of the separate French corps to conduct coordinated operations aimed at an operational objective, this was to remain a constant throughout the war.¹¹⁵ Wellington's attempts to arrange a system of continuous logistics for his army does not truly qualify as an element of operational art. Although he spent a great amount of time "attending to details" and arranging logistical support, the allies were to depend upon forage as much as did the French. By extension, the allies were incapable of fielding an operationally durable formation, this was to prove Wellington's undoing in the Talavera and Salamanca campaigns.

In the campaign of April to July 1809, it appeared that Wellington was taking a more operationally minded view of the war he was to wage. He had

decided upon his “cautious system” to wage a war of exhaustion against the occupying French. But, true to his form as an “attacking General”, he could not help himself when he saw a lucrative target. Defeating Soult at Oporto, he attempted to join his army with the Spanish army of Cuesta to fight a decisive battle on the plains before Madrid. The result was the Battle of Talavera. Both Wellington and Marshal Victor concentrated and then maneuvered for position in the days leading up to the battle. Once engaged, the French tried mightily to turn it into a battle of annihilation, only dogged resistance by the English prevented it from occurring. Wellington’s initial operational vision was the only element of operational art seen in this phase of the war; unfortunately, it did not last.

It was only after Talavera that Wellington truly began to exhibit some of the characteristics of operational art. He identified Lisbon, and its essential harbor, as his decisive point. Knowing he would be well supplied by sea, Wellington chose to capitalize on the French dependence on forage. By practicing a policy of “scorched earth”, Messena’s ability to conduct continuous operations would be severely restricted. Wellington deployed his forces in a distributed fashion, covering each of the three major invasion routes, and occupying the defenses around Lisbon. His campaign plan called for a slow withdrawal toward Lisbon, luring the French into positions in front of the Torres Vedras line. This maneuver was successful in restricting French freedom of action; they did exactly what Wellington intended them to do. While the allies

were amply supplied from the sea, the French, unable to effectively forage, starved before the lines of Torres Vedras. This campaign is Wellington's best effort at the practice of operational art in the defense.

Unfortunately, true to his roots, Wellington was to fail in his campaign of 1811 to 1812. He began in a brilliant fashion, securing the two major routes into central Spain, Ciudad Rodrigo and Badajoz, then isolating them by the seizure of the bridge at Almaraz. These tasks were accomplished by means of both rapid maneuver and distribution of forces within his area of operations. But, with the routes open to Madrid, Wellington sought, and achieved, a battle of annihilation at Salamanca. Seeing a chance to end the war in a rapid campaign, Wellington split his forces and began a pursuit to the north. He misidentified the fortress at Burgos as the decisive point, laying siege for eight weeks. This was a grave error, as it gave the French time and space in which to regain the advantage, resulting in the British retreat back into Portugal. All four elements of classical strategy are evident in this campaign, while only Wellington's initial operations against Ciudad Rodrigo and Badajoz showed signs of operational vision.

Wellington's final offensive campaign comes the closest to what could be termed operational art in the offense. He carefully formulated a plan and carried it out flawlessly. His two pronged thrust to the northeast cannot quite be termed a distributed operation but, it was designed to retain his freedom of action. The French were limited to accepting decisive battle or retreating toward the French border. Most important, just as in the campaign to liberate Portugal, Wellington

had the vision to both formulate and then execute a plan that fully achieved his purpose.

CONCLUSIONS AND RELATED DISCUSSION

Wellington's experience in India convinced him that classic strategy was the most decisive form of military art. As he had opposed Indian natives trained by the French, he naturally assumed his Indian techniques would work as well against the French on the Iberian Peninsula. To his chagrin, he found this was not always the case. When he was able to gain a numerical superiority, either by actual numbers, or in the advantages of the defense, Wellington did quite well against Napoleon's Marshals. But, when confronted by massed corps, he encountered an enemy that, while possible to defeat, was impossible to destroy. Wellington had met his own "dreadful symmetry" on the high plains of Spain. Obviously, a new style of military art would be required to gain victory.

Wellington's first attempt at a new military art was his concept of the cautious system. Although he was correct in noting that the Peninsular War was to be a protracted affair, he failed to realize that the cautious system was, at best, a transition strategy. It would be useful in buying time in order to build strength, but once it was possible to transition back to the offense he would again be executing classic strategy against an equal opponent. Voile, symmetry again!

It is clear that in three of the five campaigns of the Peninsular War, Wellington chose to practice classical strategy. It is only in the campaigns of

1809-1811 and 1813-1814 that he mounted a new style of military campaign that can, at best, be called an early form of operational art. Although not full fledged operational art, this was the best Wellington could do as he lacked the technological innovations of both the telegraph and railroad. Without these two crucial elements, both instantaneous command and control and the ability to conduct a true distributed campaign were impossible.

Wellington's contribution to the development of operational art was his ability break the symmetry of the Peninsular War by gaining an asymmetrical advantage. His quest for this advantage was largely successful because the French Marshals persisted in the practice of classic strategy. As the Duke so eloquently stated in his famous reference to the "campaign of ropes", once the harness of classic strategy was broken, it became irrelevant.

Wellington's ability to tie knots and go on is best summed up by what U.S. doctrine calls *mental agility*, "the ability of friendly forces to react faster than the enemy, in order to seize and hold the initiative".¹¹⁶ Wellington's ability to identify symmetry, adapt a new operational vision, and conduct a new form of war allowed him to achieve these effects. His extraordinary mental agility made Wellington one of history's great captains and makes a study of this campaigns relevant today.

Just as Wellington was required to adapt to changing conditions in order to gain an asymmetrical advantage, this ability remains the keystone to maintaining a decisive edge on the battlefield of the future. U. S. Grant and the

Soviets discovered the modern form of operational art as their means to asymmetrical advantage. But, is operational art the ultimate form of military art? It would seem obvious that as conditions continue to change, so must military art.

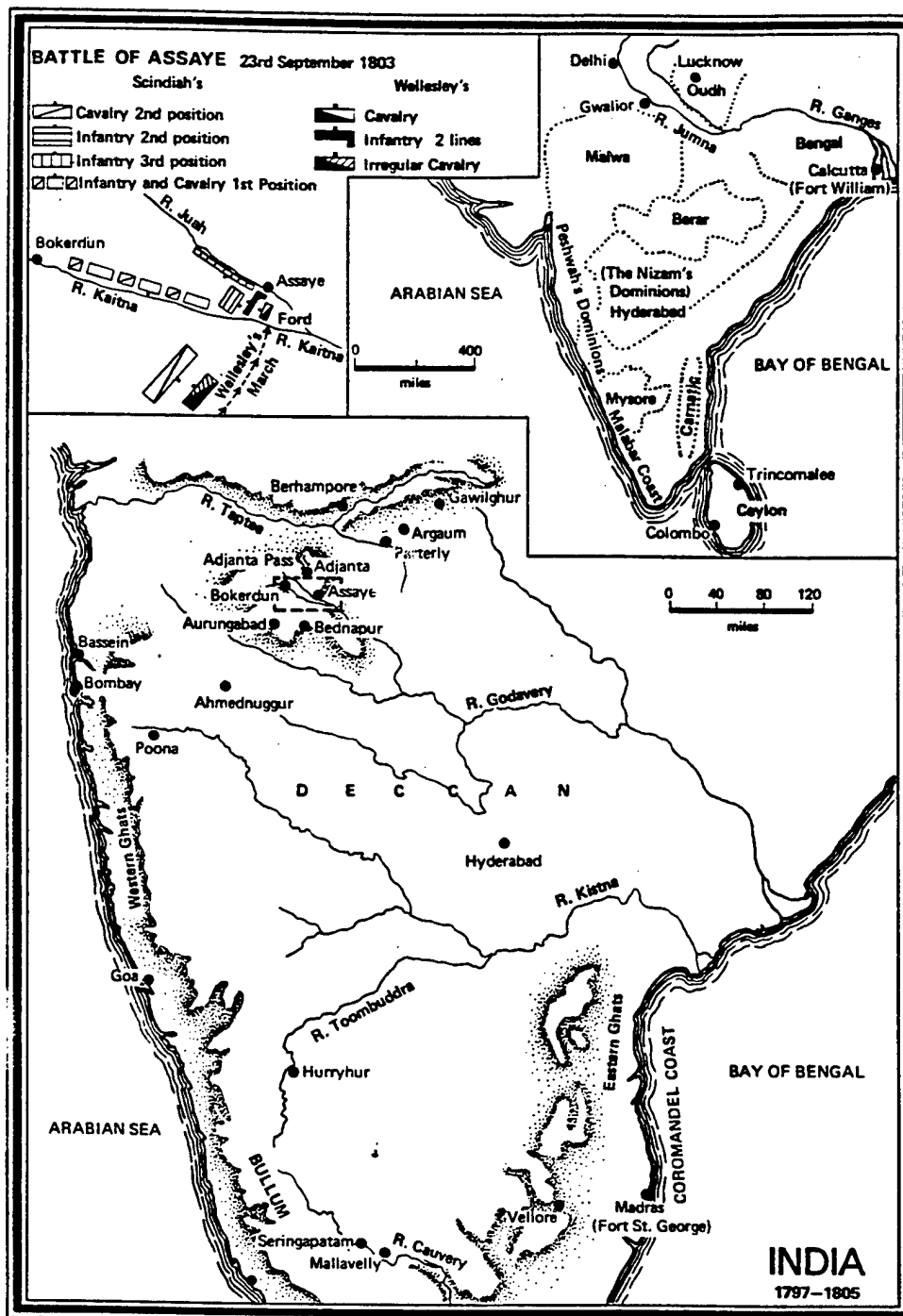
Emerging doctrine is beginning to embrace the concept of asymmetrical advantage as a key element of the U.S. Army's operational concept. The 1997 Draft of FM 100-5 speaks of gaining asymmetric effects by dissimilarity and overmatch. Dissimilarity forces an opponent to fight against things for which he has no design or capability, while overmatch is achieved by generating and applying power similar to that of the enemy's at a level that he cannot match.¹¹⁷ It is hoped that this definition will apply not only to traditional warfare, but will bridge the gap to Military Operations Other Than War (MOOTW). While this new operational concept may see the U.S. into the next century, it will remain valid only as long as conditions remain constant.

History proves that conditions always change, unfortunately it gives little clue as to when significant change will occur. In order to adapt and overcome, the operational artist must maintain the same military agility as displayed by Wellington. It is only through mental agility that the ability to gain and maintain an asymmetrical advantage will be achieved.

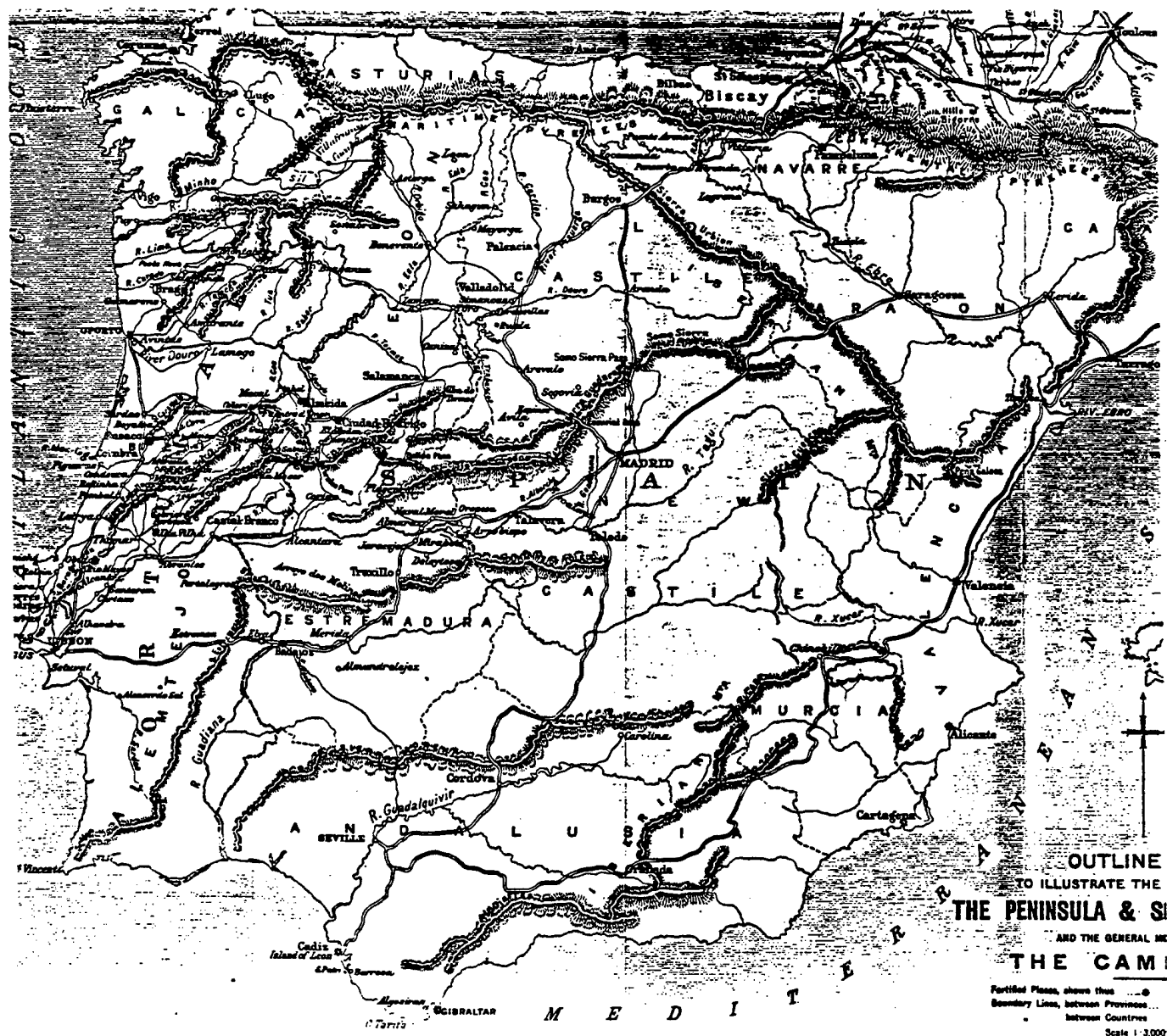
CAMPAIGN ANALYSIS MATRIX

	Initial landing and operations Jul - Dec 1808	Talavera Apr - Jul 1809	Liberation of Portugal Aug 1809 - May 1811	Salamanca Jun 1811 - Dec 1812	Vitoria May 1813 - Apr 1814
Battle of Annihilation	Yes, Vimeiro	Definitely sought	No	Definitely sought	Only at the last battle
Enemy Army as COG	Yes, Junot's Corps	Marched immediately to the nearest enemy, Oporto	Friendly - Lisbon/harbor Enemy - foraging method	Yes, sought battle against Marmont	Fortress of Burgos then French border
Concentration of Forces	Landed, march, & fought concentrated	British forces - Yes Spanish allies - No	Initially distributed, concentrated for battle	Yes, for battle of Salamanca	Only for Battle of Vitoria
Maneuver to Gain Position	Yes, to the defensive ground of Vimeiro	Yes, to the hills of Talavera	No, maneuvered to limit French freedom of action	Yes, for several days prior to Salamanca	No, to retain allied freedom of action
Distributed Operation	No	No	Yes, British distributed, Portuguese defending	No	Two prong thrust, separated by 100 miles
Distributed Campaign	No	No	Only in initial phase of defense	No, force split after Madrid had no common purpose	Yes, unified mission of both wings of allied army
Continuous Logistics	Not long enough to determine	No, depended on Spain for support, failed	Yes, supplied through Lisbon harbor	No	Yes, to Bayonne
Instantaneous Cmd & Cntrl	No	No	semaphore system in Torres Vedras Line	No	No
Operationally Durable Formation	Not long enough to determine	No, tied to lack of logistical support	No	No	No
Operational Vision	No	Cautious system quickly abandoned	Yes, formulated a plan and saw it to end	Only in initial phase, in securing forts and routes	Thorough plan, Excellent execution
Distributed Enemy	No	No	No	No	No
Distributed Deployment	French - No British - No	French - No British - No	Initially, then collapsed for the defense	No, force split after Madrid	Yes

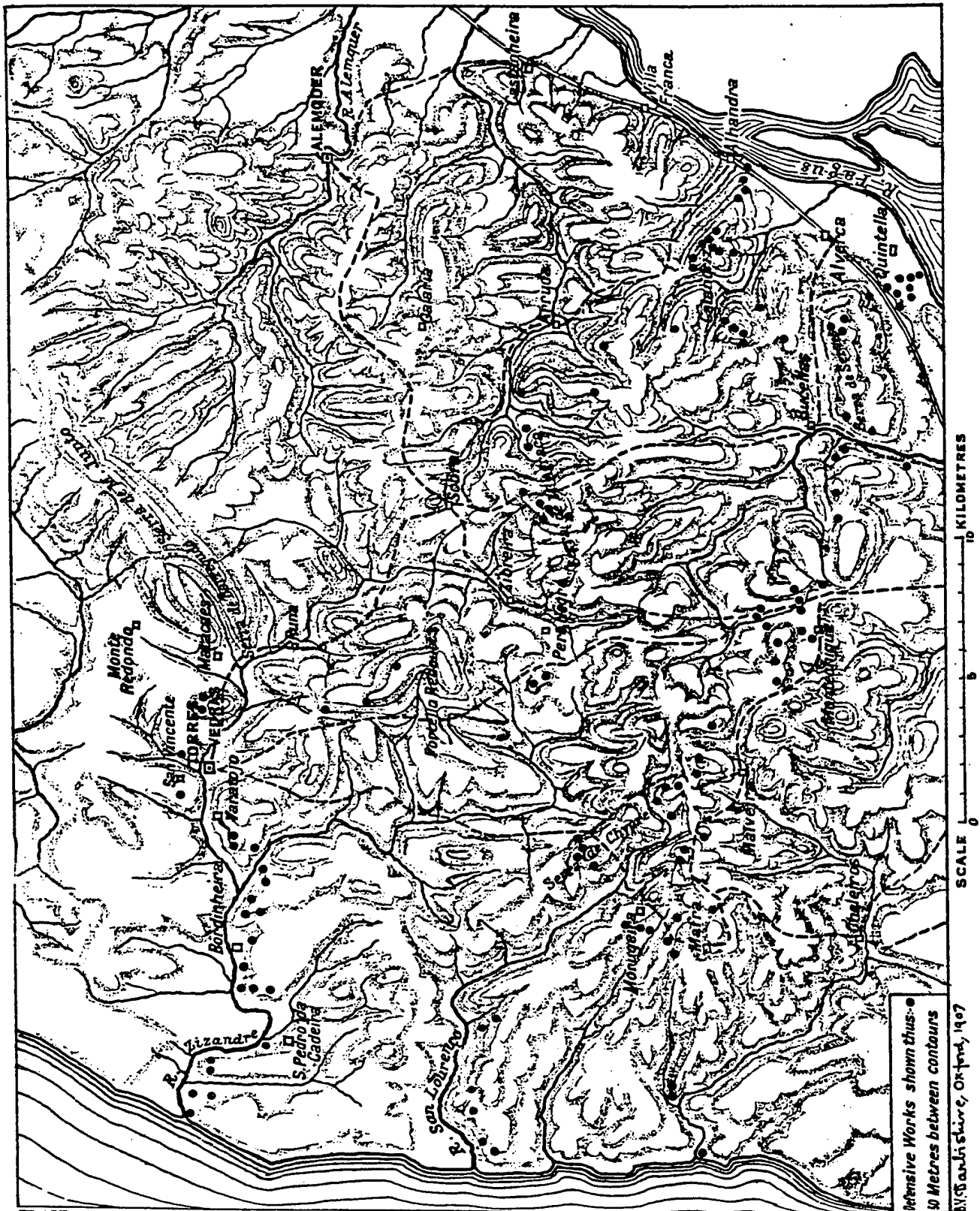
had no common purpose



MAP A, INDIAN CAMPAIGNS
(from Longford, Wellington, p 84)



MAP B, THE IBERIAN PENINSULA
(from Robinson, Wellington's Campaigns, Map I)



THE LINES OF TORRES VEDRAS
 (from Oman, *A History of the Peninsular War*, vol 3, p 433)

ENDNOTES

¹ Chandler, David G. The Campaigns of Napoleon. (MacMillan Publishing Co. Inc., New York, N.Y. 1966), p 586.

² Ibid. p 596.

³ Ibid. p 597-599.

⁴ Ibid. p 601-611.

⁵ Longford, Elizabeth. Wellington The Years of the Sword. (Harper & Row, New York, N.Y., 1969), p 442.

⁶ Schneider, James J. Mars Ascending: Total War and the Rise of the Soviet Warfare State. (UMI dissertation Services, 1992), p 4-8.

⁷ Ibid. p 14.

⁸ Schneider, James J. The Theory of Operational Art. (School of Advanced Military Studies, U.S. Army Command and General Staff College, Ft. Leavenworth, Kans. Theoretical Paper No. 3. 2d revision - 1 Mar 1988), p14.

⁹ Ferrill, Arther. The Origins of War, (New York, Thomas & Hudson, Inc. 1985), p 44-63.

¹⁰ Delbruck, Hans. History of the Art of War, Within the Framework of Political History, Volume I, Antiquity. Translated from the German by Walter J. Refroe, Jr. (Greenwood Press, Westport, Conn., 1975), p 72-81.

¹¹ Ibid. p 454-455.

¹² Handel, Michael I. Masters of War Classical Strategic Thought. (Frank Cass Portland Or., 1992), p 19.

¹³ Clausewitz, Carl von. On War. (Edited and Translated by Michael Howard and Peter Paret. Princeton University Press, Princeton, N.J., 1976), p 227.

¹⁴ Ibid. p 258.

¹⁵ Ibid. p 595-596.

¹⁶ Ibid. p 248.

¹⁷ Ibid. p 596.

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- ¹⁸ Handel, Masters of War, p 42.
- ¹⁹ Jomini, Antoine Henri. The Art of War. (Stackpole Books, Harrisburg, Pa., 1992), p 89-90.
- ²⁰ Ibid. p 88-92.
- ²¹ Clausewitz, On War, p 204.
- ²² Ibid. p 489.
- ²³ Jomini, The Art of War, p 328-329.
- ²⁴ Handel, Masters of War, p 42.
- ²⁵ Clausewitz, On War, p 261.
- ²⁶ Hendrick, J. Kevin. Too Light? Too Heavy? Too Medium? The 2d Infantry Division as a Platform for Decisive Operations on the Korean Peninsula. (U.S. Command and General Staff College, Fort Leavenworth, Kans., December 1997), p 9.
- ²⁷ Jomini, The Art of War, p 178-179. Jomini mentions the battle of Zama, where Scipio decisively defeated Hannibal without a turning movement, at Rivoli, the turning part was completely beaten, and the maneuver was unsuccessful at both Stockach and Austerlitz.
- ²⁸ Ibid. P 100-114.
- ²⁹ Schneider, James, J. Vulcan's Anvil The American Civil War and the Emergence of Operational Art. (U.S. Army Command and General Staff College, Fort Leavenworth, Kans. 16 June 1991), p 1-3.
- ³⁰ Ibid. p 30-35.
- ³¹ Ibid. p 35-38.
- ³² Schneider, Mars Ascending, p 134.
- ³³ Cited in J. W. Kipp, "Preface: General-Major A. A. Svechin and Modern Warfare" in A. A. Svechin, Strategy, ed. Kent D. Lee (Minneapolis: East view Press, 1992), p 28.
- ³⁴ Schneider, Mars Ascending, p 135.

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- ³⁵ Ibid. p 136.
- ³⁶ Ibid. p 155.
- ³⁷ Ibid. p 174-176.
- ³⁸ M. N. Tukhachevsky, "March to the Vistula", in Joseph Pilsudski, Year 1920, (London: Pilsudski Institute of America, 1972), p 37-44.
- ³⁹ Schneider, Mars Ascending, p 165.
- ⁴⁰ M.N. Mouchin, Posledovatel 'nyye operatsiy po opytu Marny I Visly, (Moscow-Leningrad: Gosizdat, 1928), p 118.
- ⁴¹ Schneider, Mars Ascending, p 181.
- ⁴² Ibid.
- ⁴³ FM 100-2-3, The Soviet Army, Troops, Organization, and Equipment, (Washington, D.C.: HQ, Department of the Army, June 1991), p 4-118.
- ⁴⁴ Schneider, Mars Ascending, p 183-184.
- ⁴⁵ Ibid. p 180.
- ⁴⁶ Ibid. p 23.
- ⁴⁷ Ibid. p 24-25.
- ⁴⁸ Ibid. p 27.
- ⁴⁹ Ibid. p 32.
- ⁵⁰ Ibid.
- ⁵¹ Ibid. p 34-35.
- ⁵² Ibid. p 36, 39.
- ⁵³ Ibid. p 37-38.
- ⁵⁴ Herbert, Paul H. Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations. (Combat Studies Institute, U.S. Army Command and General Staff College, Fort Leavenworth, Kans., June 1988), p 25-29.

⁵⁵ Field Manual 100-5, Operations. (Washington, D.C.: HQ, Department of the Army, 20 August 1982), p 2-1.

⁵⁶ Ibid. p 2-3.

⁵⁷ Field Manual 100-5, Operations. (Washington, D.C.: HQ, Department of the Army, 10 February 1986), p 10.

⁵⁸ Ibid.

⁵⁹ Ibid. p 12.

⁶⁰ Ibid. p 179.

⁶¹ Field Manual 100-5, Operations. (Washington, D.C.: HQ, Department of the Army, June 1993), p 6-2.

⁶² Ibid.

⁶³ Ibid.

⁶⁴ Longford, Wellington, p xix.

⁶⁵ Ibid. p 98.

⁶⁶ Ibid. p 45-53.

⁶⁷ Ibid. p 55.

⁶⁸ Wellesley, Arthur. The Despatches of Field-Marshal The Duke of Wellington during his Campaigns in India, Denmark, Portugal, Spain, The Low Countries, and France, and Relating to America, From 1799 to 1815. (Selected and arranged by Walter Wood) (E.P. Dutton & Co., London: Grant Richards, 1902), p 6-7.

⁶⁹ Ibid. p 7.

⁷⁰ Longford, Wellington, p 59.

⁷¹ Ibid. p 62.

⁷² Wellesley, Wellington's Despatches, p 9-11.

⁷³ Longford, Wellington, p 83.

⁷⁴ Ibid. p 85-86.

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- ⁷⁵ Ibid. p 87.
- ⁷⁶ Ibid. p 88.
- ⁷⁷ Ibid. p 89.
- ⁷⁸ Ibid. p 89-93.
- ⁷⁹ Ibid. p 93.
- ⁸⁰ Ibid. p 94-95.
- ⁸¹ Griffith, Paddy. Wellington - Commander. (Antony Bird Publications Limited, Sussex, England, 1983), p 26.
- ⁸² Longford, Wellington, p 140.
- ⁸³ Ibid. p 139.
- ⁸⁴ Ibid.
- ⁸⁵ Howard, Donald D. Wellington as a Strategist. (Manchester University Press, New York, 1990), p 90.
- ⁸⁶ Moore, James C. A Narrative of the British Army in Spain, Commanded by His Excellency Lieut. General Sir John Moor, KB, Authenticated by Official Papers and Original Letters, (1809), Moore to Castlereagh, 25 November 1808, Appendix, p 31-32; Supplementary Despatches, Correspondence and Memoranda of the Duke of Wellington 14 vols, (London, 1858-1872), Castlereagh to Wellington, 2 April 1809, vi, 210-12.
- ⁸⁷ Griffith, Wellington - Commander, p 30-31.
- ⁸⁸ Ibid. p 31.
- ⁸⁹ Oman, Charles. A History of the Peninsular War, Vol. 2. (Oxford at the Clarendon Press, 1902), p 559-598.
- ⁹⁰ Ibid. p 96.
- ⁹¹ Griffith, Wellington - Commander, p 31.
- ⁹² Glover, Michael, Wellington as an Attacking General – The Peninsular War. (Antony Bird Publications Limited, Sussex, England, 1983), p 57.
- ⁹³ Griffith, Wellington - Commander, p 32.

-
- ⁹⁴ Howard, Wellington as a Strategist, p 99.
- ⁹⁵ Weller, Jac. Wellington in the Peninsula, 1808-1814. (Greenhill Books, London, 1992), p 112.
- ⁹⁶ Howard, Wellington as a Strategist, p 97-98.
- ⁹⁷ Weller, Wellington in the Peninsula, p 117.
- ⁹⁸ Ibid. p 115.
- ⁹⁹ Ibid. p 118-119.
- ¹⁰⁰ Ibid. p 119-120.
- ¹⁰¹ Ibid. p 122.
- ¹⁰² Ibid. p 124.
- ¹⁰³ Wellesley, Wellington's Despatches, p 228-234.
- ¹⁰⁴ Howard, Wellington as a Strategist, p 105-106.
- ¹⁰⁵ Ibid. p 106.
- ¹⁰⁶ Ibid. p 107.
- ¹⁰⁷ Ibid. p 108.
- ¹⁰⁸ Ibid. p 108-109.
- ¹⁰⁹ Ibid. p 109-110.
- ¹¹⁰ Ibid. p 110-111.
- ¹¹¹ Ibid. p 111.
- ¹¹² Ibid. p 112.
- ¹¹³ Weller, Wellington in the Peninsula, p 355-360.
- ¹¹⁴ Oman, The Peninsular War, Vol. I, p 260.
- ¹¹⁵ The Lone exception to this statement is the coordination between Soult and Marmont, which resulted in lifting the British siege of Badajoz in 1810.

¹¹⁶ Field Manual 100-5, Operations. (Washington, D.C.: HQ, Department of the Army, June, 1993), p 2-7.

¹¹⁷ Field Manual 100-5, Operations, Final Draft. (Washington, D.C.: HQ, Department of the Army, 5 August 1997), p 3-1.

BIBLIOGRAPHY

Government Publications

Field Manual 100-2-3, The Soviet Army, Troops, Organization, and Equipment. Washington D.C.: HQ, Department of the Army, June 1991.

Field Manual 100-5, Operations, Washington D.C.: HQ, Department of the Army, 20 August 1982.

Field Manual 100-5, Operations, Washington D.C.: HQ, Department of the Army, 10 February 1986.

Field Manual 100-5, Operations, Washington D.C.: HQ, Department of the Army, June 1993.

Field Manual 100-5, Operations Final Draft, Washington D.C.: HQ, Department of the Army, August 1997.

Books

Bellamy, Christopher. The Evolution of Modern Land Warfare Theory and Practice. Routledge, New York, N.Y., 1990.

Clausewitz, Carl von. On War. Edited and Translated by Michael Howard and Peter Paret. Princeton University Press, Princeton N.J., 1976.

Chandler, David G. The Campaigns of Napoleon. MacMillan Publishing Co., Inc., New York, 1966.

Delbruck, Hans. History of the Art of War, Within the Framework of Political History, Volume I, Antiquity. Translated from the German by Walter J. Refroe, Jr. Greenwood Press, Westport, Conn., 1975.

Esdaile, Charles J. The Duke of Wellington and the Command of the Spanish Army 1812-1814. St. Martin's Press, New York, 1990.

Ferrill, Arther. The Origins of War. Thomas & Hudson, Ind., New York, 1985.

Griffith, Paddy. Wellington - Commander the Iron Duke's Generalship. Anthony Bird Publications Limited, London, 1983.

Glover, Michael. "Wellington as an Attacking General" in Wellington - Commander. Anthony Bird Publications Limited, London, 1983.

-
- Handel, Michael I. Masters of War Classical Strategic Thought. Frank Cass, Portland Oreg., 1992.
- Herbert, Paul H. Deciding What Has to Be Done. General William E. DePuy and the 1976 Edition of FM 100-5, Operations. Combat Studies Institute, U.S. Army Command and General Staff College, Fort Leavenworth, Kans., June 1988
- Henry, Philip. Notes of Conversations with the Duke of Wellington, 1831-1851. John Murray, London, 1889.
- Howard, Donald D. Wellington as a Strategist. Manchester University Press, New York, 1990.
- Jomini, Antoine Henri. The Art of War. Stackpole Books, Harrisburg, Penn., 1992.
- Longford, Elizabeth. Wellington The Years of the Sword. Harper & Row, New York, 1969.
- Mouchin, M. N. Posledovatel 'nyye operratsiy po opytu Marny I Visly, Moscow-Leningrad: Gosizdat, 1928.
- Moore, James C. A Narrative of the British Army in Spain, Commanded by His Excellency Lieut. General Sir John Moore, KB, Authenticated by Official Papers and Original Letters, 1809.
- Napier, W.F.P. A History of the War in the Peninsula and in the South of France. AMS Press, New York, N.Y., reprinted from the edition of 1862.
- Oman, Charles. A History of the Peninsular War in 7 Volumes. Oxford at the Clarendon Press, 1902.
- Paret, Peter. Makers of Modern Strategy from Machiavelli to the Nuclear Age. Princeton University Press, Princeton, N.J., 1986.
- Robinson, C.W. Wellington's Campaigns 1808-1815 Volume I & II. Hugh Rees, Ltd., London, 1905.
- Triandafillov, V.K. The Nature of the Operations of Modern Armies. Translated by William A. Burhans, edited and with a foreward by Jacob W. Kipp. Frank Cass & Co. LTD, Essex, England, 1995.

Svechin, Aleksandr A. Strategy. Edited by Kent D. Lee. East View Publications, Minneapolis, Min, 1994.

Tukhachevsky, M. N. "March to the Vistula", in Joseph Pilsudski, Year 1920. London: Pilsudski Institute of America, 1972.

Van Crevelde, Martin. Command In War. Harvard University Press, Cambridge, Mass., 1985.

Weigley, Russell F. The American Way of War A History of United States Military Strategy and Policy. Indiana University Press, Bloomington, Ind., 1973.

Weller, Jac. Wellington in the Peninsula 1808-1814. Greenhill Books, London, 1992.

Wellesley, Arthur. The Despatches of Field-Marshal The Duke of Wellington during his Campaigns in India, Denmark, Portugal, Spain, the Low Countries, and France, and Relating to America, From 1799 to 1815. Selected and arranged by Walter Wood. E.P. Dutton & Co., London: Grant Richards, 1902

Wood, Walter. The Despatches of Field-Marshal The Duke of Wellington. E.P. Dutton & Co., New York, 1902.

Articles

Krause, Michael D. "Moltke and the Origins of Operational Art". Military Review. (Vol 70, no 9)(Sep1990). p 28-44.

Marcy, Scott A. "Operational Art: Getting Started". Military Review. (Vol 70, no 9)(Sep1990). p 106-112.

McCormick, Michael. "The New FM 100-5: A Return to Operational Art", Military Review (Volume 77, no 5)(Sep-Oct1997). p 3-14.

Newell, Clayton R. "What is Operational Art?" Military Review. (Vol 70, no 9)(Sep 1990). p 2-16.

Saint, Crosbie E. "A CINC's View of Operational Art". Military Review. (Vol 70, no 9)(Sep 1990). p 65-78.

Schneider, James J. "Theoretical Implications of Operational Art". Military Review. (Vol 70, no 9)(Sep1990). p 17-27.

Swain, Richard M. "The Written History of Operational Art". Military Review. (Vol 70, no 9)(Sep1990). p 100-105.

Dissertations and Unpublished Papers

Coffin, Timothy R. How Big is the Canvas for Operational Art? School of Advanced Military Studies United States Army Command and General Staff College, Ft Leavenworth, KS. Second Term AY 93-94.

Hendrick, J. Kevin. Too Light? Too Heavy? Too Medium? The 2d Infantry Division as a Platform for Decisive Operations on the Korean Peninsula. School of Advanced Military Studies United States Army Command and General Staff College, Ft Leavenworth, KS. December, 1997.

Meyer, Jack Allen. Wellington's Generalship: A Study of His Peninsular Campaigns. UMI Dissertation Information Service, 1984.

Pittard, Dana J.H. Thirteenth Century Mongol Warfare: Classical Military Strategy of Operational Art? School of Advanced Military Studies United States Army Command and General Staff College, Ft Leavenworth, KS. Second Term 93-94.

Schneider, James Joseph. Mars Ascending: Total War and the Rise of the Soviet Warfare State, 1864-1929. UMI Dissertation Services, 1992.

Schneider, James J. The Theory of Operational Art. School of Advanced Military Studies, U.S. Army Command and General Staff College, Ft. Leavenworth, KS. Theoretical Paper No. 3. 2d revision - 1 Mar 1988.

Schneider, James J. Vulcan's Anvil: The American Civil War and the Emergence of Operational Art. School of Advanced Military Studies, U.S. Army Command and General Staff College, Ft. Leavenworth, KS. Theoretical Paper No. 4. 16 Jun 1991.